

## Notice of Allowability

Application No.

10/661,016

Examiner

Vineeta S. Panwalkar

Applicant(s)

GROEN ET AL.

Art Unit

2611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 1/8/08.
2. ☒ The allowed claim(s) is/are 1-5, 7-12, 14-16, 18-22, 24, 26, 28, 30-32 and 35-48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20080831.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### *Examiner's Amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Hardaway (Reg. No. 52,992) on 2/1/08.

In the claims:

- 1a. Replace claim 19 with:

19. (Currently Amended). A programmable multi-gigabit transceiver comprises:

a transmit section operably coupled to convert transmit data words into transmit serial data in accordance with a transmit setting;

a receive section operably coupled to convert receive serial data stream into receive data words in accordance with a receive setting;

an interface to programmable logic section operably coupled to provide the transmit data words from the programmable logic section to the transmit section in accordance with the transmit setting and to receive the receive data words from the receive section in accordance with the receive setting; and

control module operably coupled to produce the transmit setting and the receive setting based on transceiver operational requirements;

wherein the control module further functions to:

generate the receive setting to enable, logically disable, or physically disable at least one element of a programmable PMA receiver module of the receiver section;

generate the transmit setting to enable, logically disable, or physically disable at least one element of a programmable PMA transmit module of the transmit section;

generate the transmit setting to enable, logically disable, or physically disable at least one element of a programmable PCS transmit module of the transmit section; and

generate the receive setting to enable, logically disable, or physically disable at least one element of a programmable PCS receive module of the receive section;

wherein the receive section further comprises:

a programmable physical media attachment (PMA) receive module operably coupled to convert the receive serial data into receive parallel data in accordance with the receive setting; and

a programmable physical coding sublayer (PCS) receive module operably coupled to convert the receive parallel data into the receive data words in accordance with the receive setting; and

wherein the programmable PCS receive module further comprises:

programmable data alignment module operably coupled to align the receive parallel data in accordance with the receive setting to produce aligned data words, wherein size and rate of the aligned data words are set based on the receive setting;

programmable descramble and decode module operably coupled to descramble, decode, or pass the aligned data words in accordance with the receive setting to produce processed aligned data words, wherein the receive setting indicates descrambling, decoding, or passing of the aligned data words, wherein the receive setting further indicates a type of descrambling when the programmable descramble and decode module is descrambling the aligned data words and further indicates a type of decoding when the programmable descramble and decode module is decoding the aligned data words;

programmable storage module operably coupled to elastic store or pass the processed data words in accordance with the receive setting to produce stored data words; and

programmable decode and verify module operably coupled to decode, verify or pass the stored data words in accordance with the receive setting and the programmed logic interface setting to produce the receive data words, wherein the receive setting indicates the decoding, the verifying or the passing of the stored data words, indicates a second type of decoding when the programmable decode and verify module is decoding the stored data words and

indicates a type of verifying when the programmable decode and verify module is verifying the stored data words and wherein the programmed logic interface setting indicates rate and size of the received data words.

- 1b. Cancel claim 23.
- 1c. In claim 24, lines 1 and 2, change "The programmable multi-gigabit transceiver of claim 23," to -- The programmable multi-gigabit transceiver of claim 19,--
- 1d. Cancel claim 25.
- 1e. In claim 35, line 1, change "The programmable logic device of claim 29," to --  
The programmable logic device of claim 28, --

***Reasons for Allowance***

- 2. Claims 1-5, 7-12, 14-16, 18, 19-22, 24, 26, 28, 30-32 and 35-48 are allowed.

The following is an examiner's statement of reasons for allowance:

- 2a. Regarding claims 1, 12 prior art of record fails to show the programmable multi-gigabit transceiver, wherein programmable scrambling module operably coupled to scramble or pass the stored encoded data words in accordance with the transmit interface setting to produce the transmit parallel data, wherein the

transmit interface setting indicates a type of scrambling when the programmable scrambling module is scrambling the stored encoded data words, in combination with each and every other limitation of the claim.

- 2b. Claims 2-5 & 7-11 and 14-16 & 18 are allowed as being dependent on claims 1 and 12.
- 2c. Regarding claim 19, prior art of record fails to show a programmable multi-gigabit transceiver comprising a programmable decode and verify module operably coupled to decode, verify or pass the stored data words in accordance with the receive setting and the programmed logic interface setting to produce the receive data words, wherein the receive setting indicates the decoding, the verifying or the passing of the stored data words, indicates a second type of decoding when the programmable decode and verify module is decoding the stored data words and indicates a type of verifying when the programmable decode and verify module is verifying the stored data words and wherein the programmed logic interface setting indicates rate and size of the received data words, in combination with each and every other limitation of the claim.
- 2d. Claims 20-22, 24 and 26 are allowed as being dependent on claim 19.

- 2e. Regarding claim 28, prior art of record fails to show the programmable device comprises programmable scrambling module operably coupled to scramble or pass the stored encoded data words in accordance with the transmit PMA\_PCS interface setting to produce the transmit parallel data, wherein the transmit PMA\_PCS interface setting indicates a type of scrambling when the programmable scrambling module is scrambling the stored encoded data words, in combination with each and every other limitation of the claim.
- 2f. Claims 30-32 and 35-48 are allowed as being dependent on claim 28.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vineeta S. Panwalkar whose telephone number is 571-272-8561. The examiner can normally be reached on M-F 8:30-5:00.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VP

  
MOHAMMED GHAYOUR  
SUPERVISORY PATENT EXAMINER